

**Notice of Allowability**

Application No.

10/718,205

Examiner

Kamran Afshar, 571-272-7796

Applicant(s)

WILSON, TIMOTHY J.

Art Unit

2681

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to \_\_\_\_.
2. ☒ The allowed claim(s) is/are 1-25.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 2/12/04 & 11/20/03
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_.

**DETAILED ACTION**

***Allowable Subject Matter***

1. Claims 1-25 are allowed.

The following is an examiner's statement of reasons for allowance: 1-25.

With respect to claims 1, 7, Karino (U.S. Pub. No.: 2002/0025817 A1) is the closest prior art to the application invention, which discloses a micromobility network wherein routers are connected in a tree connection and radio base stations are connected to the routers. In the lowest layer such that an updating notification of a route from a mobile terminal is repeated in order from a radio base station to successive higher order routers to update the route and a packet is distributed along the updated route, and more particularly to a route updating method for the micromobility network (See e.g. Page 1, ¶ [0001], Fig. 2).

Sarikaya (U.S. Pub. No.: 2005/0036510 A1), which discloses apparatus, and an associated method, for performing link layer paging of a mobile station operable in a radio communication system.

O'Neill (U.S. Pub. No.: 2003/0224758 A1), which discloses Methods and apparatus for the utilization of multiple uplinks in reverse tunneling.

However, the prior art of record fails to disclose singly or in combination or render obvious that the method comprising: determining that a move of the communication to an adjacent MSN is desired to facilitate the mobility of the communication unit; initiating a modification of the tunnel switched path to a modified tunnel switched path associated with the adjacent MSN and the lower layer address while the information is transferred to the edge MSN on the tunnel switched path; and releasing the tunnel switched path after the modified tunnel switched path is established and supporting the communication on the modified tunnel switched path.

With respect to claim 13, the prior art of record fails to disclose singly or in combination or render obvious that the method comprising: processing a message associated with a modification of a downstream portion of the tunnel switched path from between the intermediate MSN and a first MSN to between the intermediate MSN and an adjacent MSN; modifying the downstream portion of the tunnel

Art Unit: 2681

switched path to establish a modified tunnel switched path associated with the adjacent MSN and the lower layer address; transferring the information to the adjacent MSN on the modified tunnel switched path; and releasing the downstream portion of the tunnel switched path after the modified tunnel switched path is established.

With respect to claim 16, the prior art of record fails to disclose singly or in combination or render obvious that the method comprising: receiving the information from the host, the information directed from the host to the communication unit using an IP address thereof, and directing the information to the communication unit on the tunnel switched path using the lower layer address; and directing the information from the host to the communication unit using an IP address thereof on a modified tunnel switched path using the lower layer address; wherein the modified tunnel switched path includes an adjacent MSN.

With respect to claim 19, the prior art of record fails to disclose singly or in combination or render obvious that the memory storing instructions for causing the processor to: determine that a move of the communication is desired to facilitate the mobility of the communication unit; initiate a modification of the tunnel switched path to a modified tunnel switched path associated with the lower layer address while the information is transferred on the tunnel switched path; and release the tunnel switched path after the modified tunnel switched path is established and supporting the communication on the modified tunnel switched path.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
  - a) Lee (U.S. Pub. No.: 2005/0105490 A1), which discloses Method, medium, and system for searching crossover router and method, medium, and system for reserving resources in mobile network.

Art Unit: 2681

b) Soninen (U.S. Pub. No.: 2002/0049059 A1), which discloses IP routing optimization in an access network.

c) Haverinen (U.S. Pub. No.: 2001/0021175 A1), which discloses Load balancing in telecommunications system supporting mobile IP.

d) Kujala (U.S. Pub. No.: 2004/0264451 A1), which discloses Addressing and routing in wireless mesh networks.

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Kamran Afshar whose telephone number is (571) 272-7796. The examiner can be reached on Monday-Friday.

If attempts to reach the examiner by the telephone are unsuccessful, the examiner's supervisor, **Feild, Joseph** can be reached @ (571) 272-4090. The fax number for the organization where this application or proceeding is assigned is **571-273-8300** for all communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
**Kamran Afshar**

  
**JOSEPH FEILD**  
**SUPERVISORY PATENT EXAMINER**